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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,729	07/21/2008	Peter Enoksson	4145-000030/US	7828
30593	7590	05/04/2009	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			NOORI, MAX H	
P.O. BOX 8910			ART UNIT	PAPER NUMBER
RESTON, VA 20195			2855	
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			05/04/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,729	ENOKSSON ET AL.	
	Examiner	Art Unit	
	Max Noori	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/21/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election Acknowledgment

1. Acknowledgment is made of the election of group I claims 1-11, without traverse.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-5, 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Bonin.

Regarding claims 1, 9, Bonin discloses an apparatus for microindentation hardness testing and surface imaging with features of the claimed invention including a capacitive force sensor (see, for example, figure 1) with sensor elements that could be fabricated using circuit etching technology (col. 7, line 51). The sensor comprises a substrate layer (element 16 in figure 1) and the substrate layer includes a central plate (element 20). The substrate layer and the central plate correspond to the bulk structure and the membrane in the claimed invention. The central plate is attached to the substrate layer through a spring supporting structure, resulting in movement of the central plate with respect to the substrate layer (see, for example, col. 5, lines 43-51). The movement of the central plate is measured using detection elements (see, for example, col. 10, line 21). Further, the central plate is attached to a sample holding structure

Art Unit: 2855

(24), corresponding to the probe holding structure in the claimed invention (see, for example, col. 9, line 50).

Regarding claim 3, Bonin shows capacitive sensor (see, claim 1).

Regarding claim 4, Bonin teaches the use of piezoelectric means (see, for example, col. 12, line 17).

Regarding claim 5, the various elements have rectangular shape (see figure 1).

Regarding claim 8, the springs make almost u-shape formation

Regarding claim 10, Bonin shows application on an electron microscope (see, for example, the abstract).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonin.

Regarding claim 2, Bonin does not show three detection element, however, since he suggests the use of a pair of sensor (see for example, claim 7), it would have been obvious for a skilled artisan at the time of the invention to modify his device to increase the number of detection element in order to provide for more accurate detection system.

Regarding claims 6-7, Bonin show a few spring means, and does not show exactly eight spring, it would have been obvious, however, for a skilled artisan at the time of the invention to

Art Unit: 2855

modify Bonin, by increasing the number of the spring around the central plate, in order to have an enhanced effect in the moving of the membrane and therefore, obtain a more accurate sensing results.

6. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Max H. Noori whose telephone number is (571) 272-2185. The examiner can normally be reached on Tuesday-Friday from 8:00 AM to 6:00 P.M.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2800. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The central fax number is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Max Noori/

Primary Examiner, Art Unit 2855

Saturday, May 02, 2009